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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/585,000	06/29/2006	Zenta Sugawara	62533.00051	3943

32294 7590 09/28/2010  
SQUIRE, SANDERS & DEMPSEY L.L.P.  
8000 TOWERS CRESCENT DRIVE  
14TH FLOOR  
VIENNA, VA 22182-6212

EXAMINER
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KRAUSE, JUSTIN MITCHELL

ART UNIT	PAPER NUMBER
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3656

NOTIFICATION DATE	DELIVERY MODE
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09/28/2010

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

IPGENERALTYC@SSD.COM  
SWHITNEY@SSD.COM

<b>Office Action Summary</b>	<b>Application No.</b> 10/585,000	<b>Applicant(s)</b> SUGAWARA ET AL.	
	<b>Examiner</b> JUSTIN KRAUSE	<b>Art Unit</b> 3656	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 13 July 2010.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 5, 7 is/are allowed.
- 6) ☒ Claim(s) 1-4, 6 and 8-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                    | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)         | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                          |

**DETAILED ACTION**

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 9 and 10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 9 and 10, the phrase, "are disposed adjacently disposed on opposite sides of the central axis" is unclear. The phrase "disposed adjacently disposed" is awkward and the spatial relationship created by the phrase cannot be determined.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 4, 6 and 9-10 are rejected under 35 U.S.C. 102(b) as anticipated by Madhani (US Patent 5,797,900).

Madhani discloses a joint structure to be connected to an assembly and a link of a robot comprising:

a first motor (M1 or M2) in the link (28a and 28b, the link is considered to be the entire assembly, as parts 28a and b are inseparable from one another, and thus comprise one link of the device),

a second motor (M2 or M4) in the link,

a joint (about axis A) at an end of the link configured to cause the assembly to swing in a longitudinal motion with a power from the first motor and cause the assembly to swing in a lateral motion (about axis B) with respect to the link with a power from the second motor, wherein

the first motor and second motor disposed so that the output shaft of the first motor and output shaft of the second motor are parallel to one another and orthogonal to the link.

Regarding claim 2, Madhani discloses a third motor (M5), the output shaft being shifted by a predetermined amount with respect to a central axis of rotary motion.

Regarding claim 4, Madhani discloses a first rotary unit (18a, b) connected to the assembly, and a second rotary unit (22) configured to support the first rotary unit while allowing a rotation around a first axis of the first rotary unit (A), and a base (24), configured to support the second rotary unit while allowing a rotation around a first axis of the second rotary unit (B), wherein the first and second motors are disposed in the base (Madhani discloses the motors disposed in the base).

Regarding claim 6, Madhani discloses a motor side pulley connected to an output shaft of the third motor (93), a driven pulley (90) connected to the base and configured

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to rotate the base around the central axis of a rotary motion, and a belt (C5) configured to transfer a rotation of the motor side pulley to the driven pulley.

Regarding claim 9, Madhani discloses the first motor and second motor disposed adjacently on opposite sides of the central axis of the link respectively (figs. 2 and 3).

Regarding claim 10, Madhani teaches motors disposed adjacently on opposite sides of the central axis of the link and the rotation output shaft of first and second motors parallel to each other and orthogonal to the link (fig. 3).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Madhani as applied to claims 1 and 2 above, and further in view of Iriyama (US Patent 5,732,599).

Madhani does not disclose an elastic member configured to generate a force between the moveable cover and at least one of the assembly and the robot link, and place the moveable cover in a predetermined position.

Iriyama teaches an elastic member (27) configured to generate a force (sealing force) between a cover (c2) and a robot arm component for the purpose of sealing the robot joint against contaminants from the environment (col. 5, lines 25-30).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Madhani to include an elastic member configured to generate a force between the moveable cover and one of the robot link and the assembly for the purpose of providing a sealing force which prevents contamination from the environment as taught by Iriyama.

Regarding claim 8, Iriyama discloses a contact face to which the elastic member is contactable is formed on the movable cover (see fig 5), and a stopper (the groove which the elastic member is fitted is a stopper) which contacts with the elastic member to control the range of rotation around the central axis of rotary motion of the moveable cover is provided at an inside periphery of the movable cover.

### ***Allowable Subject Matter***

Claims 5 and 7 are allowed.

### ***Response to Arguments***

Applicant's arguments with respect to claims 1-4, 6, and 8-10 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

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§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JUSTIN KRAUSE whose telephone number is (571)272-3012. The examiner can normally be reached on Monday - Friday, 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Ridley can be reached on 571-272-6917. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Justin Krause/  
Examiner, Art Unit 3656

/Thomas R. Hannon/  
Primary Examiner, Art Unit 3656